

# A Study on MALARIA CONTROL PROGRAM in East Lombok, Indonesia :

In-Depth Interviews and Collecting Baseline Data and  
Epidemiological/Sociological Survey (CBDESS)

—— Part 2 ——

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## 〔抄 録〕

マラリアは、毎年2億から3億人の患者と、150万から200万人の死者を出す人類にとって最悪の感染症の一つである。日本では稀な病であるからといって、21世紀の地球社会で、毎日3千人もが犠牲になる悲劇に関心のみでよいだろうか。マラリア問題の解決は、アジアやアフリカだけではなく、人類共有の課題であり、先進国の責任は重い。

マラリアは、感染経路や発症メカニズムの医学的研究が進み、治療や予防が可能となっている。ではなぜ、現在もエイズに匹敵するひどい被害が続いているのだろうか。マラリア問題の根底には、医学的な要因だけでなく、劣悪な衛生環境や栄養状態、経済的貧困、社会資本不足、ジェンダー差別、教育の欠如など、人間貧困の悪循環からくる生存権のはく奪状況があるのだ。

インドネシアでは、2005年の異常気象で、雨期の11月から3月にかけて激しい集中豪雨が襲った。洪水はマラリア原虫を運ぶハマダラ蚊の大発生を引き起こし、マラリア感染がアウトブレイク（大爆発）した。森林やラグーン（潟湖）の乱開発、都市化と工業化など社会変化による複合要因もアウトブレイクの背景にある。

われわれは2006年4月から3年計画で、インドネシア国立マタラム大医学部と国際共同研究「マラリア・コントロール・プログラム」を進めている。そして、バリ島の東にあるロンボク島で、マラリア感染の社会疫学的調査(CBDESS)を実施した。同島では05年のアウトブレイクで、千人以上が感染し多くの死者が出たといわれている。

CBDESS 調査では、マラリア被害のあった村々の一軒ずつを訪ね、992人の世帯代表者から聞き取り調査を行った。87%の世帯で、貧しさから5歳までの子どもを入院させることができずに亡くしていた。また、半数以上が学校に行っていないか、

小学校すら卒業していないなど、教育が欠けている状況だった。マラリアの知識も6割になく、夜間にシャワーやトイレを屋外でするなど感染の危険に身をさらしていた。調査結果を統計解析すると、収入や教育レベルの低さとマラリア感染の危険性とが深く関連していることが明らかになった。

これまでのマラリア対策は、発生源のハマダラ蚊の撲滅とマラリア患者の早期発見と治療が中心だった。しかし、今回のアウトブレイクに関する社会疫学的研究は、従来の対策を根本的に見直すことが必要なことを示している。マラリアの被害を抑えるためには、貧困な地域での経済対策や教育の向上によって、母子の健康状態を良くしたり、感染を防ぐ生活習慣を広めることが重要だ。これは人間社会の問題であり、マラリアに対抗できる地域力を高める「コミュニティ・エンパワメント」が求められている。

異常気象は、地球温暖化の影響の可能性がある指摘されている。そうであるなら、集中豪雨がもたらしたマラリア・アウトブレイクは、豊かな先進国のしわ寄せを途上国の最も貧しい人々、とくに子どもが受けたことになる。日本ができることは、経済的支援以外にも、たくさんあると考えている。たとえば、自らが村に入って、マラリア教育の手助けをすることもその一つだ。自分たちの行動が子どもの命を救うことを実感できれば、生きる意味を見失っている日本の若者やシニアにとっても、得難い体験になるにちがいない。マラリアから子どもを守る活動への支援の輪を広げたい。

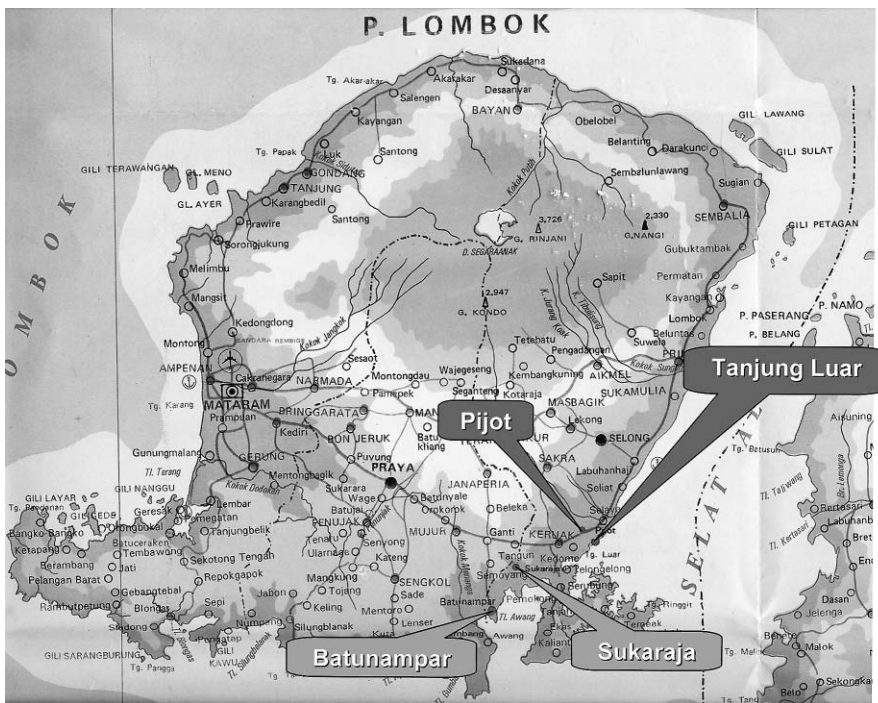
キーワード Malaria outbreak, Malaria Control Program, community empowerment, Lombok Island, socio-epidemiological survey

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## V. Result of Collecting Baseline Data and Sociological/Epidemiological Survey (CBDESS)

The Collecting Baseline Data and Sociological/Epidemiological Survey (CBDESS) has been conducted from November to December 2006 in East Lombok, West Nusa Tenggara, Indonesia. The CBDESS project is a part of Malaria Control Program in Lombok started



MAP 1 Research sites in Kuruak and Jerowaru sub districts, East Lombok, Indonesia

from 2006 with the collaboration between the research groups of Professor Mulyanto, School of Medicine, Mataram University and Professor Mitsuda, Faculty of Sociology, Bukkyo University. The purpose of CBDESS is to examine the correlation between social, economic, culture and religious aspects related with malaria transmission and incidences.

In CBDESS survey we used two stage cluster random sampling, with malaria endemicity as cluster. In precision rate 1%, confidence level 99% and proportion 0.0172 (taken from AMI in East Lombok), the minimal sample is 936.

We got the 1000 respondents/samples for the quantitative questionnaire of CBDESS which have been interviewed by sixty six Malaria Village Workers. The Respondents are the heads of family or their wives in four villages of Batu Nampar, Pijot, Sukaraja and Tanjung Luar in Kuruak and Jerowaru sub districts, East Lombok. After questionnaire verification, 992 (99.2%) questionnaires can be analyzed with sample distribution as followings : Pijot, 192 samples, Batu Nampar, 200, Tanjung Luar, 300 and Sukaraja 300.

## V-I. RESPONDENT AND SOCIAL CARACTHERISTICS

1. GENDER : Respondents consist of 596 male respondents (60.4%) and 393 female respondent (39.6%).
2. AGE : Respondents have various ages range from 17 to 78 years old, with the age group of 30-39 years old is the majority (31.3%), followed by the groups of 20-29

(21.9%) and 40–49 (21.8%).

3. RELIGION: Almost all respondents are Moslem (99.8%). The other religion is Christian and Buddha (0.1%).
4. ETHNICITY: Sasak (89.1%) is the most dominant ethnic group in East Lombok, followed by Bugis (4.7%). The other ethnic groups are Javanese, Sumbawa and Bima (less than 1%).
5. MARRIAGE STATUS: 99.5% of respondents have ever married and 36.5% respondents married for two times or more.

6. OCCUPATION: 81% respondents have jobs, mostly as farmer, fisherman and informal worker. The other jobs are government officer and trader.

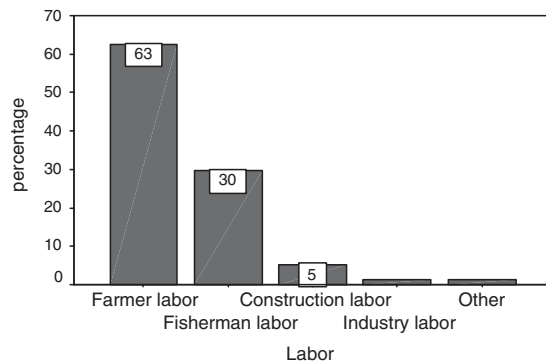


Figure 1 Occupation

7. INCOME: 53.6% respondents gain less than 500,000 Indonesian Rupiah per month (less than 6,700 yen) as amount of income and 36.4% get 500,000 to one million Rupiah (6,700–13,300 yen) every month.
8. OWNERSHIP: Only 40.1% respondents have their farm lands for planting, and 21.9% have live stocks. Most of them have their own house (92.7%). Nearly, a half of respondents (52.9%) has electricity supply. 29.9% own a TV, 26.9% respondent do a radio, and 10.6% have a telephone

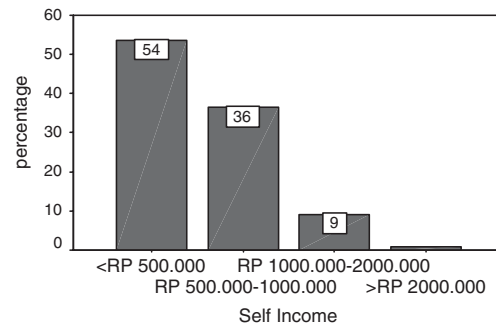


Figure 2 Income

or cellular phone facilities. The standard of their material life is extremely low.

9. DAILY EXPENDITURES: 61.0% respondents spend only 100,000–500,000 Rupiah (1,330–6,700 yen) per month and 24.1% expense less than 100,000 Rupiah per month. The highest priority (69.6%) in daily consumptions is essential food including rice and followed by clothing (10.1%) and education (5.5%) as shown in Figure 3. The majority (83.4%) expenses for health maintenance budget by lower than 100,000 Rupiah per month and 15.7% pays 100,000–500,000 Rupiah per month. For educational investment 67.7% respondents spend only less than 100,000 Rupiah per month and 28.6% do from 100,000 to 500,000 per month.

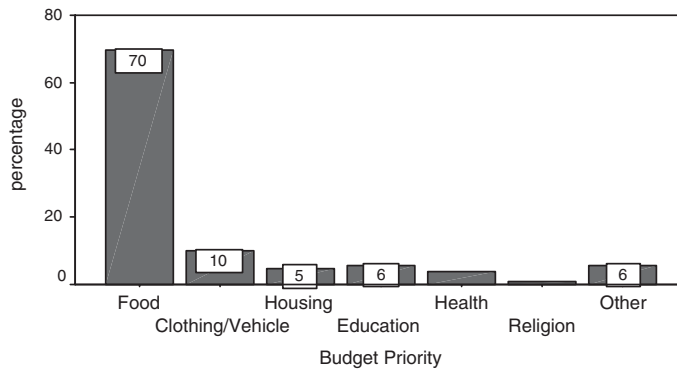


Figure 3 Priorities of daily expenditures

These above data elucidate that four villages of Batu Nampar, Pijot, Sukaraja and Tanjung Luar in East Lombok are “low income and absolutely poverty” communities.

10. **EDUCATION** : The majority of respondents have never attended any school (31.7%) and 20.6% respondents did not finish elementary school. 31.5% finished elementary school and 10% accomplished a junior high school. Only 6.4% has a senior high school level or a higher stage of university.

It should be indicated that 93.6% of local people have the very low educational level of less than junior high school in Batu Nampar, Sukaraja, Pijot and Tanjung Luar villages.

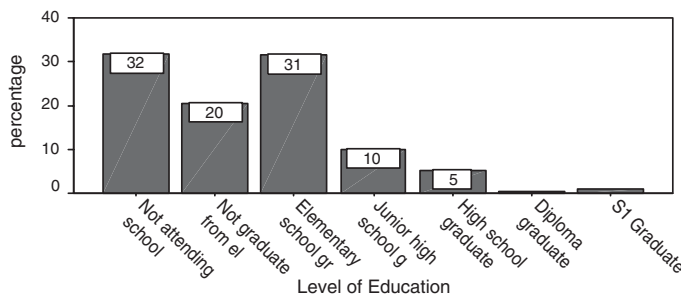


Figure 4 Educational Level

11. **COMMUNITY AND CULTURAL ASPECTS** : Most of respondents (82.4%) actively engage in their community activities such as religious meeting (62.0%), community meeting (4.7%), PKK women's activity (1.2%). 84.4% evaluate their cultural aspect as a moderate score and 13.9% does as a good score. The most respectable person in their communities is a village formal leader (36.1%) continued by a religious leader (31.4%). When respondents have their daily life problems, in particular, health and economic straggles, the most reliable person to ask supports are a formal leader (32.9%), a community patron(9.6%) and a religious leader (7.3%).

12. RELIGIOUS ASPECTS: 89.6% respondents routine to pray 5 times in everyday and go to a mosque (Moslem temple) everyday. 65.1% have ever experienced to have teachings on health and environmental topics at religious meetings, especially Sermon (Friday Moslem Meeting). The three top topics are cleaning up of their daily life surroundings (56.6%), disease prevention (3.7%) and mental health (3.6%). It can be concluded that Kruak and Jerowaru sub districts are very religious communities.

## V-II. MOTHER AND CHILD HEALTH INDICATOR

The mother and child health (MCH) indicator consists of number of children in family, abortion history and history of children death.

The average number of the children is 2.91 in the respondents families and the families with four children or more is 34.9%. 17.3% respondents have abortion history in his/her family. 38.6% of the families have the death history of their children. The death of baby under one year old baby is found in 58.0% and 87.0% of death children is under 5 years old.

All of MCH indicators are very low in Batu Namapar, Sukaraja, Pijot and Tanjung Luar communities.

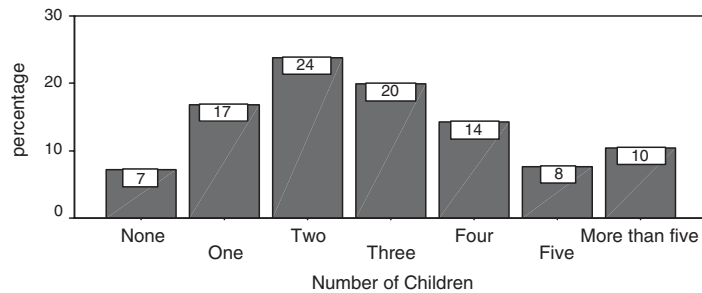


Figure 5 the Number of Children in the family



Figure 6 Ages of Died Children

## V-VII. KNOWLEDGE OF MALARIA AND HEALTH BEHAVIOUR

### 1. KNOWLEDGE OF MALARIA

The level of Malaria Knowledge among the residents in kruak and jerowaru sub districts is very low and only 1.8% have good information of malaria such as the definition, causes, symptom and cure.

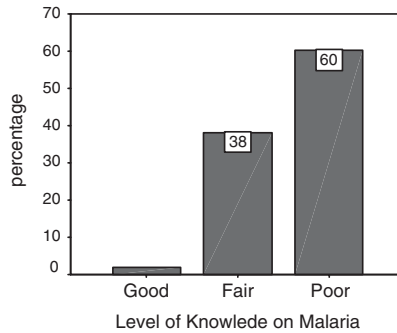


Figure 7 Level of Knowledge on Malaria

### 2. ANTI- MALARIA BEHAVIOR

86.9% respondents avoid against mosquito bites in their daily life. The popular prevention activities are to use mosquito coils (59.9%), bednet(13.2%), pesticide spray and lotion usage (less than 2%). However, 13.1% did not any preventive action. The reason why mosquito coil is the most popular is the cheapest cost. The price of coil is less than

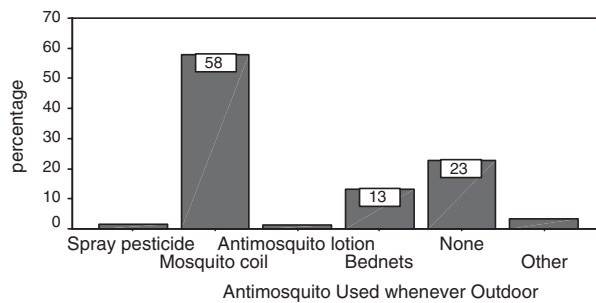


Figure 8 Antimosquito Used whenever Outdoor

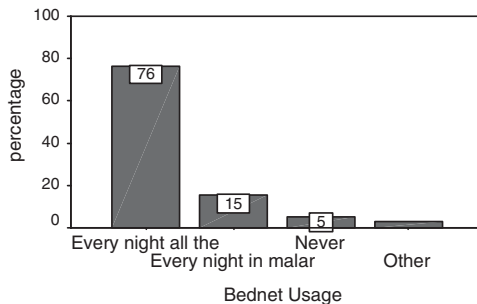


Figure 9 Bednet Usage

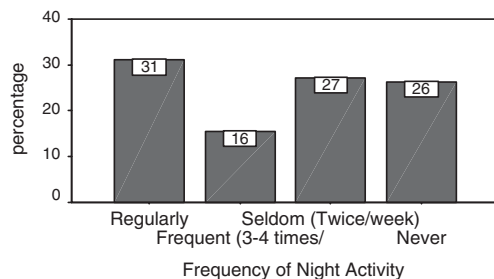


Figure 10 Frequency of Night Activity

50,000 Rupiah per month and a bednet costs 150,000 to 200,000 Rupiah.

40.4% own bednet among the respondent families. Only 32.4% of them use it promptly for malaria prevention, especially for their babies.

### 3. MALARIA RISK BEHAVIOR

Regarding with high risk behaviors of malaria, 52.1% respondents sleep outside of houses or open space during night. 73.7% have night activities such as fishing and its preparation, night patrol, toilet and shower out of houses.

The social mobility in Kruak and Jerowaru sub districts is very high due to job hunting in towns and other islands. 28.3% of local people go into malaria endemic areas outside their own villages in their daily life.

### 4. Community Health Care (PUSKESMAS)

The PUSKESMAS is the first favorite and appropriate place for most of people (80.3%) to search for malaria treatment and medicine.

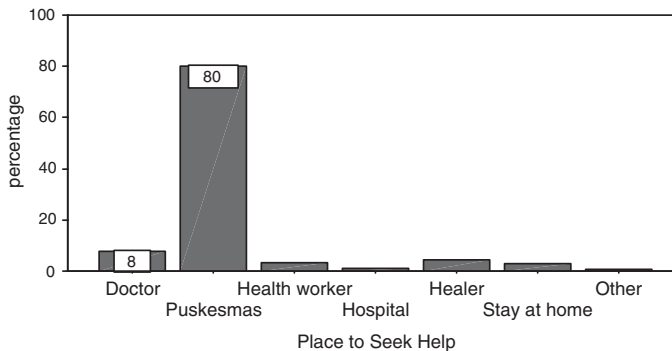


Figure 11 Place for Aids on Malaria

## V-VIII. MALARIA INCIDENCIES AND MORBIDITY

Many respondents have been suffered from malaria or malaria symptoms (42.8%) and 34.5% families have been suffered from malaria or malaria symptoms among their family members. 69.3% respondents have ever been suffered from malaria more than twice during their lifetimes. In conclusion, Kruak and Jerowaru sub districts are highly infectious areas of malaria.

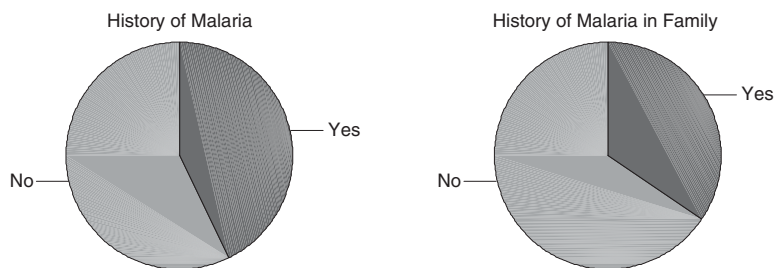


Figure 12 History of Malaria



## VI. STATISTICAL ANALISYS OF CBDESS DATA

Statistical analyses conducted by Chi Square test to examine correlation of each factor with malaria incidences in four villages of Batu Nampar, Pijot, Sukaraja and Tanjung Luar in Kuruak and Jerowaru sub districts, East Lombok. The results are shown in Table 1, Table 2 and Table 3.

Table 1 Correlation between socio, economic, cultural aspects, and malaria knowledge and behavior related with Malaria incidences in East Lombok

Variable	P Value	Significances
Sex	p=0,736	Not significant
Age	p=0,001	Significant correlation
Gender	p=0,373	Not significant
Educational level	p=0,000	Significant
Job status	p=0,274	Significant correlation
People amount in house	p=0,007	Significant correlation
Families amount in house	p=0,000	Significant correlation
Community support	p=0,000	Significant correlation
Fund/ material support	p=0,000	Significant correlation
Moral support	p=0,039	Significant correlation
Social activities participation	p=0,000	Significant correlation
Income	p=0,000	Significant correlation
Family Health expenses	p=0,000	Significant correlation
Religious activity participation	p=0,000	Significant correlation
Health issues in religious meeting	p=0,000	Significant correlation
Cultural aspec	p=0,000	Significant correlation
Using mosquitoes bite prevention	p=0,026	Significant correlation
Bed net owning	p=0,000	Not significant
Bed net amount	p=0,136	Not significant
Bed net using	P=0,000	Significant correlation
Anti mosquitoes lotion using	p=0,933	Not significant
Open space/ outdoor night sleep behavior	p=0,000	Significant correlation
Outdoor night activities	p=0,938	Not significant
Traveling into epidemic areas	p=0,014	Significant correlation
Member of families as coordinator for malaria prevention in his/her families	p=0,190	Not significant
Malaria Knowledge level	p=0,000	Significant correlation
Health behavior related to malaria	p=0,000	Significant correlation

Table 2 Correlation between socio, economic, culture, malaria knowledge and behavior related with high Malaria incidences communities, i.e., Tanjung Luar and Sukaraja

Variable	P Value	Significances
Sex	p=0,030	Significant correlation
Age	p=0,000	Significant correlation
Gender	p=0,365	Not significant
Educational level	p=0,000	Significant correlation
Job status	p=0,076	Not significant
People amount in house	p=0,030	Significant correlation
Families amount in house	p=0,485	Not significant
Community support	p=0,510	Not significant
Fund/ material support	p=0,000	Significant correlation
Moral support	p=0,135	Not significant
Social activities participation	p=0,000	Significant correlation

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Income	p=0,000	Significant correlation
Family Health expenses	p=0,000	Significant correlation
Religious activity participation	p=0,006	Significant correlation
Health issues in religious meeting	p=0,014	Significant correlation
Cultural aspect	p=0,000	Significant correlation
Using mosquitoes bite prevention	p=0,001	Significant correlation
Bed net owning	p=0,133	Not significant
Bed net amount	p=0,141	Not significant
Bed net using	p=0,000	Significant correlation
Anti mosquitoes lotion using	p=0,097	Not significant
Open space/ outdoor night sleep behavior	p=0,003	Significant correlation
Outdoor night activities	p=0,016	Significant correlation
Traveling into epidemic areas	p=0,000	Significant correlation
Member of families as coordinator for malaria prevention in his/her families	p=0,013	Significant correlation
Malaria Knowledge level	p=0,066	Not significant
Health behavior related to malaria	p=0,000	Significant correlation

Table 3 Correlation between socio, economic, cultural aspects, and malaria knowledge and behavior related with low Malaria incidences communities, i.e., Pijot and Batu Nampar

Variable	P Value	Significancies
Sex	p=0,002	Significant correlation
Age	p=0,005	Significant correlation
Gender	p=0,373	Not significant
Educational level	p=0,117	Not significant
Job status	p=0,000	Significant correlation
People amount in house	p=0,085	Not significant
Families amount in house	p=0,000	Significant correlation
Community support	p=0,336	Not significant
Fund/ material support	p=0,278	Not significant
Moral support	p=0,027	Significant correlation
Social activities participation	p=0,000	Significant correlation
Income	p=0,780	Not significant
Family Health expenses	p=0,002	Significant correlation
Religious activity participation	p=0,000	Significant correlation
Health issues in religious meeting	p=0,000	Significant correlation
Cultural aspect	p=0,000	Significant correlation
Using mosquitoes bite prevention	p=0,001	Significant correlation
Bed net owning	p=0,480	Not significant
Bed net amount	p=0,098	Not significant
Bed net using	p=0,724	Not significant
Anti mosquitoes lotion using	p=0,095	Not significant
Traveling into epidemic areas	p=0,000	Significant correlation
Outdoor night activities	p=0,062	Not significant
Outside area's traveling activities	p=0,000	Significant correlation
Member of families as coordinator for malaria prevention in his/her families	p=0,000	Significant correlation
Malaria Knowledge level	p=0,000	Significant correlation
Health behavior related to malaria	p=0,815	Not significant

## ACKNOWLEDGEMENT

This MALARIA CONTROL PROGRAM: Collecting Baseline Data and Epidemiological /Sociological Survey was conducted with the collaboration between Medical School, University of Mataram and Bukkyo University and financially supported by Japan Society for the Promotion of Science (JSPS) and Bukkyo University.



A Study on MALARIA CONTROL PROGRAM (満田久義)

		4. Kristen Catholic 5. Buddha 6. Konghucu 7. Other (please mention) : _____		
I.7	Formal education	1. None 2. Elementary school (not finished) 3. Elementary school graduate 4. Middle school graduate 5. High school graduate 6. Diploma graduate 7. College graduate	<input type="checkbox"/>	
I.8	Do you work?	1. Work 2. Not work → please proceed to I.11 3. Retired	<input type="checkbox"/>	
I.9	What is your occupation?	1. Civil servant (PNS) 2. Village administrator 3. Teacher 4. Employee 5. Private employee 6. Fisherman 7. Farmer 8. Labor 9. Other (please mention) : _____ <i>For answers other than no 8, please proceed to I.11</i>	<input type="checkbox"/>	
I.10	What kind of labor are you?	1. Farmer labor 2. Fisherman labor 3. Construction labor 4. Industry labor 5. Other (please mention) : _____		
I.11	What is your ethnicity?	1. Sasak 2. Sumbawa 3. Bima 4. Bali 5. Bugis 6. Jawa 7. Other (please mention) : _____	<input type="checkbox"/>	
I.12	What is your mother's ethnicity?	1. Sasak 2. Sumbawa 3. Bima 4. Bali 5. Bugis 6. Jawa 7. Other (please mention) : _____	<input type="checkbox"/>	

II. SOCIAL ASPECT			
II.1	Are you married?	1. Yes 2. No → please proceed to II.	<input type="checkbox"/>
II.2	How many times did you get married?	1. 1 2. 2 3. 3 4. 4 5. > 4	<input type="checkbox"/>
II.3	How many wives do you have?	1. 1 2. 2 3. 3 4. 4 5. > 4 6. None	<input type="checkbox"/>
II.4	Does your husband/wife work?	1. Work 2. Not work 3. Retire → please proceed to III.7	<input type="checkbox"/>

II.5	What is your husband's/wife's occupation?	1. Civil servant (PNS) 2. Village administrator 3. Teacher 4. Employee 5. Private employee 6. Fisherman 7. Farmer 8. Labor 9. Other (please mention) : _____ _____	a) Husband/wife I <input type="checkbox"/> b) Husband/wife II <input type="checkbox"/> c) Husband/wife III : <input type="checkbox"/> d) Husband/wife IV <input type="checkbox"/> e) Other : _____ _____ _____		
II.6	Do you have children?	1. Yes 2. No → please proceed to No. 22	<input type="checkbox"/>		
II.7	How many children do you have? If 'none', please fill in 00		<input type="checkbox"/> <input type="checkbox"/> orang		
II.8	How many times did your wife get pregnant?	1. 1 2. 2 3. 3 4. 4 5. 5 6. >5	<input type="checkbox"/>		
II.9	How many times did your wife miss her pregnancy?	1. 1 2. 2 3. 3 4. 4 5. 5 6. >5	<input type="checkbox"/>		
II.10	Was there any of your children who died in young age?	1. Yes 2. No → please proceed to No. 17	<input type="checkbox"/>		
II.11	How many of your children died in young age?	1. 1 2. 2 3. 3 4. 4 5. 5 6. >5 7. None	<input type="checkbox"/>		
II.12	At what age did your child die?	1. < 1 years old 2. 1 – 5 years old 3. 6 –12 years old 4. 13 – 18 years old 5. > 18 years old			<input type="checkbox"/>
II.13	How many of your children currently live with you? If 'none', please fill in 00.		<input type="checkbox"/> <input type="checkbox"/>		
II.14	How many of your child is still attending school? If 'none', please fill in 00		<input type="checkbox"/> <input type="checkbox"/>		
II.15	How many of your children work?	1. 1 2. 2 3. 3 4. 4 5. 5 6. >5 7. None	<input type="checkbox"/>		
II.16	How many of your children have got married?	1. 1 2. 2 3. 3 4. 4 5. 5 6. >5 7. None	<input type="checkbox"/>		
II.17	How many of your relatives live with you?	1. 1 2. 2 3. 3 4. 4 5. 5 6. >5 7. None	<input type="checkbox"/>		

II.18	If you have any trouble (such as your child getting ill) what kind of support your community will give you?	1. Yes <input type="checkbox"/> 2. No <input type="checkbox"/> a) Funding <input type="checkbox"/> b) Moral support <input type="checkbox"/> c) Other <input type="checkbox"/> (please mention) : _____	1. My own <input type="checkbox"/> 2. My parents' <input type="checkbox"/> 3. Rent <input type="checkbox"/> 4. Other (please mention) : _____
III.4	What is the ownership status of the house you live in?		
III.5	Do you own any land resource (rice paddy, field, fishery, other)?		
III.6	How large is your land resource?		
III.7	Do you own cattle? (You can select more than one option)	1. Yes <input type="checkbox"/> 2. No <input type="checkbox"/> a) Cow <input type="checkbox"/> b) Buffalo <input type="checkbox"/> c) Goat <input type="checkbox"/> d) Horse <input type="checkbox"/> e) Chicken <input type="checkbox"/> f) Puyuh <input type="checkbox"/> g) Other <input type="checkbox"/>	
III.8	What is your main power source for daily cooking?	1. Gasoline <input type="checkbox"/> 2. Wood <input type="checkbox"/> 3. Gas (LPG) <input type="checkbox"/> 4. Coal <input type="checkbox"/> 5. Biogas <input type="checkbox"/> 6. Charcoal <input type="checkbox"/> 7. Other (please mention) : _____	
III.9			

II.19	Are you attending community activities (pengajian/religion meeting, community meeting, PKK, social work, etc)?	1. Yes <input type="checkbox"/> 2. No → please proceed to III.1
II.20	What community activity do you attend <b>most</b> ?	1. Pengajian (religion meeting) 2. Pertemuan warga (community meeting) 3. PKK (housewives meeting) 4. Anisan 5. Kerja bakti (social work) 6. Other (please mention) : _____

III. ECONOMIC ASPECT	
III.1	How much is your monthly income? (total family income)
III.2	Do you receive any financial support from abroad relatives?
III.3	How much is your average monthly income from abroad relatives?

III.1 0	Do you own any of these home appliances? (You can select more than one option)	1. Yes 2. No	a) Electricity <input type="checkbox"/> b) Television <input type="checkbox"/> c) Radio <input type="checkbox"/> d) Computer <input type="checkbox"/> e) Refrigerator <input type="checkbox"/> f) Telephone <input type="checkbox"/> (fixed/mobile)	1. < Rp. 100,000,- 2. Rp. 100,000,- s.d. Rp. 500,000,- 3. Rp. 500,000,- s.d. 1,000,000,- 4. > Rp. 1,000,000,-	How much do you spend on monthly basis for education needs?	1. < Rp. 100,000,- 2. Rp. 100,000,- s.d. Rp. 500,000,- 3. Rp. 500,000,- s.d. 1,000,000,- 4. > Rp. 1,000,000,-	<input type="checkbox"/>	
III.1 1	Which mean of transportation do you own? (You can select more than one option)	1. Yes 2. No	a) Cidomo <input type="checkbox"/> b) Bicycle <input type="checkbox"/> c) Motorcycle <input type="checkbox"/> d) Car/truck <input type="checkbox"/> e) Boat <input type="checkbox"/>	1. < Rp. 100,000,- 2. Rp. 100,000,- s.d. Rp. 500,000,- 3. Rp. 500,000,- s.d. 1,000,000,- 4. > Rp. 1,000,000,-	How much do you spend on monthly basis for transportation needs?	1. < Rp. 100,000,- 2. Rp. 100,000,- s.d. Rp. 500,000,- 3. Rp. 500,000,- s.d. 1,000,000,- 4. > Rp. 1,000,000,-	<input type="checkbox"/>	
III.1 2	How much do you spend on monthly basis for daily needs?	1. < Rp. 100,000,- 2. Rp. 100,000,- s.d. Rp. 500,000,- 3. Rp. 500,000,- s.d. 1,000,000,- 4. > Rp. 1,000,000,-	<input type="checkbox"/>	1. Food 2. Clothing/Transportation 3. Housing 4. Education 5. Health 6. Religion 7. Other (please mention) : _____ Reason : _____ _____ _____ _____				<input type="checkbox"/>
III.1 3	How much do you spend on monthly basis for healthcare needs?	1. < Rp. 100,000,- 2. Rp. 100,000,- s.d. Rp. 500,000,- 3. Rp. 500,000,- s.d. 1,000,000,- 4. > Rp. 1,000,000,-	<input type="checkbox"/>	1. By being rich 2. By being a government officer 3. By being an intellectual 4. By being an expert in religion 5. Working 6. Other (please mention): _____				<input type="checkbox"/>

IV. RELIGIOUS & CULTURAL ASPECT	
IV.1	What do you think it takes to become an honorable person in your community?

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IV.2	In the next 2-5 year, what kind of achievement do you expect most? (Please state your reason)	1. Religion achievement 2. Educational achievement 3. Health achievement 4. Housing achievement 5. Social achievement 6. Other (please mention) : _____ _____ _____ _____	<input type="checkbox"/> Reason : _____ _____ _____ _____
IV.3	Who is the most honorable person in your opinion?	1. Village leaders 2. Religion leaders 3. Community leaders 4. Wives of village leaders 5. Health workers 6. Other (please mention) : _____ _____	<input type="checkbox"/> Name : _____ Reason: _____ _____ _____ _____
IV.4	When you have any problem, to whom will you seek help most?	1. Village leaders 2. Religion leaders 3. Community leaders 4. Wives of village leaders 5. Health workers 6. Other (please mention) : _____ _____	<input type="checkbox"/> Name : _____ Reason: _____ _____ _____ _____
IV.5	In order of importance, what is the position of religion in your opinion?	1. First 2. Second 3. Third 4. Other (please mention) : _____ _____	<input type="checkbox"/>
IV.6	Do you regularly attend any religious ceremony?	1. Yes 2. No	<input type="checkbox"/>
IV.7	What kind of religious ceremony do regularly attend (Can be more than one answer)	1. Sholat jamaah 2. Sholat jumat 3. Pengajian 4. Solawatan 5. Other (please mention) : _____ _____	<input type="checkbox"/>
IV.8	How far is the mosque from your house?	1. 0 – 50 m 2. 51 – 100 m 3. 100 – 300 m 4. 300 m – 1 km 5. > 1 km	<input type="checkbox"/>
IV.9	Is there any health topics discussed in the religious ceremony?	1. Hygiene 2. Mental illness 3. Disease prevention 4. Disease treatment 5. None 6. Other (please mention) : _____ _____	<input type="checkbox"/>
IV.10	Do you agree if your religious ceremony is accompanied by non religious activity (such as social work, health activity, health education, etc)?	1. Agree 2. Not agree	<input type="checkbox"/> Reason : _____ _____ _____ _____
IV.11	What kind of religious activity do you think give the most benefit to your family?	1. Ibadah (sholat, dzikir) 2. Zakat, sedekah, infak 3. Pengajian 4. Other (please mention) : _____ _____	<input type="checkbox"/>
IV.12	How often do you go to your mosque?	1. Regularly, every prayer 2. Regularly, every evening or night prayer 3. Sometimes 4. Never	<input type="checkbox"/>



V.5	How many of them?		<input type="text"/> <input type="text"/> Person
V.6	How many times did they get malaria on average?		<input type="text"/> <input type="text"/> Times
V.7	What symptoms appear most in malaria?	1. Fever 2. Shivering 3. Sweating 4. Headache 5. Intestinal symptoms 6. Fatigue 7. Respiratory symptoms 8. Fitting 9. Other (please mention) :	<input type="text"/>
V.8	How do you think malaria can transmit from person to person?	1. Mosquito bite 2. Bad water 3. Not know 4. Other (please mention) :	<input type="text"/>
V.9	Do you have any bed nets?	1. Yes 2. No → <i>lanjutkan ke V.12</i>	<input type="text"/>
V.10	How many bed nets do you have? <i>Please show the bed nets</i>		<input type="text"/> <input type="text"/> buah
V.11	When do you and your family use the bed net?	1. Every night all the year 2. Every night in malaria season 3. Never 4. Other (please mention) :	<input type="text"/>
V.12	Is there any person in your family who takes the responsibility to prevent mosquito bites for all family?	1. Yes 2. No → <i>Please proceed to V.14</i>	<input type="text"/>

IV.13	What kind of religious activity do you think give the most benefit to your community?	1. Ibadah (sholat, dzikir) 2. Zakat, sedekah, infak 3. Pengajian 4. Other (please mention) :	<input type="text"/>
IV.14	Which rules do you obey most?	1. Religion rules 2. Government rules 3. Organizational rules 4. Both equally obeyed 5. Both equally disobeyed	<input type="text"/>
IV.15	Do you agree with statement that "Religion answers all my questions in life"?	1. Agree 2. Not agree	<input type="text"/>
IV.16	Doing religious activity keeps diseases away from my life.	1. Agree 2. Not agree	<input type="text"/>
IV.17	Illness is a test from ALLAH, we should accept it as it is.	1. Agree 2. Not agree	<input type="text"/>
IV.18	Illness can be cured by praying.	1. Agree 2. Not agree	<input type="text"/>

V. KNOWLEDGE & BEHAVIORAL ASPECT			
V.1	Have you ever got malaria?	1. Yes 2. No → <i>Lanjutkan ke V.3</i>	<input type="text"/>
V.2	How many times did you get malaria? <i>If none please fill in 00</i>		<input type="text"/> <input type="text"/> kali
V.3	When did the last time you get malaria? <i>If other calendar method is used, please mention in the blank line below.</i>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Day Month Year	
V.4	Is there any of the persons live inside your house ever got malaria?	1. Yes 2. No → <i>Lanjutkan ke V.7</i>	<input type="text"/>

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V.13	Who has the responsibility to prevent mosquito bites?	1. Mother 2. Father 3. Children 4. All 5. None	<input type="checkbox"/>
V.14	What do you think the importance of environmental fogging?	1. To reduce the mosquitoes around the houses 2. To kill the cockroach 3. To kill the rats 4. To prevent malaria transmission 5. Other (please mention) : _____	<input type="checkbox"/>
V.15	Do you agree of fogging in your living place?	1. Agree 2. Not agree  Reason: _____ _____ _____ _____	<input type="checkbox"/>
V.16	Do you agree that clean environment can prevent diseases?	3. Agree 4. Not agree  Reason: _____ _____ _____ _____	<input type="checkbox"/>
V.17	If there is any relative get fever, where will you take him/her?	1. Doctor 2. Puskesmas 3. Health worker 4. Hospital 5. Dukun 6. No where 7. Other (please mention) : _____	<input type="checkbox"/>
V.18	Where will you get the drugs for medication?	1. Doctor 2. Puskesmas 3. Health worker 4. Hospital 5. Dukun 6. Buy over the counter 7. Other (please mention) : _____	<input type="checkbox"/>
V.19	Do you often have night activities?	1. Yes 2. No	<input type="checkbox"/>
V.20	What kind of activity do you do?	1. Working 2. Night guard 3. Praying 4. Pengajian 5. Other (please mention) : _____	<input type="checkbox"/>
V.21	How often do you have that activity in one week?	3. Regularly ( 5 times or more) 4. Often ( 3-4 times) 5. Seldom (2 times or less) 6. Never	<input type="checkbox"/>
V.22	Do you often stay in the open space in the night?	1. Yes 2. No	<input type="checkbox"/>
V.23	Do you use anti-mosquito substances whenever you are in the open space at night?	1. Yes 2. No	<input type="checkbox"/>
V.24	What kind of anti-mosquito substances do you use?	1. Sprayed pesticide 2. Burned pesticide 3. Anti mosquito lotion 4. Bed nets 5. None 6. Other (please mention) : _____	<input type="checkbox"/>
V.25	Do you often travel outside your village?	1. Yes 2. No	<input type="checkbox"/>